XINZHONG CHEN
Professor of Civil, Environmental and Construction Engineering
Texas Tech University
Lubbock, Texas
e-mail: Xinzhong.chen@ttu.edu
PH: (806) 834-6794

Professional Preparation

- B.S.E. in Civil Engineering, Southwest Jiaotong University, China, 1983
- M.S.E. in Civil Engineering, China Academy of Railway Sciences, China, 1986
- Ph. D. in Civil Engineering, Kyoto University,, Japan, 1995

Professional Chronology

- September 2004 – current, Assistant Professor, Associate Professor, Professor, Department of Civil and Environmental Engineering, Texas Tech University, Lubbock, TX
- May 1998 to August 2004, Postdoctoral Research Associate, Department of Civil Engineering & Geological Sciences, University of Notre Dame, Notre Dame, IN (May 1998 - April 1999, on leave from Kyoto University, Japan)
- April 1995 – April 1998, Assistant Professor, Department of Civil Engineering, Kyoto University, Kyoto, Japan
- October 1991 - March 1995, Research Assistant, Department of Civil Engineering, Kyoto University, Kyoto, Japan
- September 1986 - October 1991, Research Engineer, Institute of Railway Engineering, China Academy of Railway Sciences, Beijing, China

Research Interests

Bridge and Building Aerodynamics; Wind Engineering; Cable-Supported Bridges and High-Rise Buildings; Fatigue and Extreme Loads and Responses of Large Wind Turbines; Structural Dynamics and Random Vibration; Structural Reliability and Performance-Based Structural Design; Full-Scale Measurements and Structural Health Monitoring; Codes and Standards

Honors/Awards

- The Ed and Linda Whitacre Faculty Fellowship, in recognition of growth in research excellence, The Edward E. Whitacre Jr. College of Engineering, Texas Tech University, 2013.
- Whitacre Engineering Research Award, in recognition of excellence in research, The Edward E. Whitacre Jr. College of Engineering, Texas Tech University, 2012.

Synergistic Activities/Committee Membership

- Editorial Board Member, *Wind and Structures*, an International Journal, 2007-
- Committee Member
  - ASCE/SEI Wind Effects Committee/Structural Wind Engineering Committee, 10/01/2005-
  - ASCE/EM Dynamics Committee, 09/02/2005 –
  - ASCE/SEI Tall Buildings Committee, 04/24/2006 –

Selected Publications (Last 10 years)

1. Zhang, X., and Chen, X. (2015). "Assessing probabilistic wind load effects via a multivariate extreme wind speed model: A unified framework to consider directionality and uncertainty." Journal of Wind Engineering and Industrial Aerodynamics, 147, 30-42.

2. Ding, J., and Chen, X. (2015). "Fatigue damage evaluation of broad-band Gaussian and non-Gaussian wind load effects by spectral methods." Probabilistic Engineering Mechanics, 41, 139-154
3. Chen, X. (2015). "Analysis of multimode buffeting response of long span bridges to nonstationary winds with force parameters from stationary wind." Journal of Structural Engineering, ASCE, 141(4), 04014131-1-14.
4. Ding, J. and Chen, X. (2014). "Assessment of methods for extreme value analysis of non-Gaussian wind effects with short-term time history samples." Engineering Structures, 80, 75-88.
5. Chen, X. (2014). "Extreme value distribution and peak factor of crosswind response of flexible structures with nonlinear aeroelastic effect." Journal of Structural Engineering, ASCE, 140(12), 04014091-1-18.
6. Chen, X. (2014). "Estimation of crosswind fatigue of wind-excited structures with nonlinear aerodynamic damping." Engineering Structures, 74, 145-156.
7. Ding, J., Gong, K., and Chen, X. (2013). "Comparison of statistical extrapolation methods for the evaluation of long-term extreme response of wind turbine." Engineering Structures, 57, 100-115.
8. Ding, J., and Chen, X. (2013). "Assessing small failure probability by importance splitting method and its application to wind turbine extreme response prediction." Engineering Structures, 54,180-191.
9. Chen, X. (2013). "Estimation of crosswind response of wind-excited tall buildings with nonlinear aerodynamic damping." Engineering Structures, 56, 766-778.
10. Chen, X., and Huang, G. (2010). "Estimation of probabilistic extreme wind load effects: Combination of aerodynamic and wind climate data." Journal of Engineering Mechanics, ASCE 136(6), 1-14.
11. Chen, X., and Huang, G. (2009). "Evaluation of peak resultant response for wind-excited tall buildings." Engineering Structures, 31(4), 858-868.
12. Huang, G., and Chen, X. (2009). "Wavelets-based estimation of multivariate evolutionary spectra and its application to nonstationary downburst winds." Engineering Structures, 31(4), 976-989.
13. Chen, X. (2008). "Analysis of alongwind tall building response to transient nonstationary winds." Journal of Structural Engineering, ASCE, 134(5), 782-791.
14. Chen, X., and Zhou, N. (2007). "Equivalent static wind loads on low-rise buildings based on full-scale pressure measurements." Engineering Structures, 29(10), 2563-2575.
15. Huang, G., and Chen, X. (2007). "Wind load effects and equivalent static wind loads of tall buildings based on synchronous pressure measurements." Engineering Structures, 29(10), 2641-2653.
16. Chen, X. (2007). "Improved understanding of bimodal coupled bridge flutter based on closed-form solutions." Journal of Structural Engineering, ASCE, 133(1), 22-31.
17. Chen, X. (2006). "Analysis of long span bridge response to winds: building nexus between flutter and buffeting." Journal of Structural Engineering, ASCE, 132(12), 2006-2017.
18. Chen, X., and Kareem, A. (2006). "Revisiting multimode coupled bridge flutter: some new insights." Journal of Engineering Mechanics, ASCE, 132(10), 1115-1123.
19. Chen, X., and Kareem, A. (2005). "Coupled dynamic analysis and equivalent static wind loads on buildings with 3-D modes." Journal of Structural Engineering, ASCE, 131(7), 1071-1082.
20. Chen, X., and Kareem, A. (2005). "Dynamic wind effects on buildings with 3-D coupled modes: application of high frequency force balance measurements." Journal of Engineering Mechanics, ASCE, 131(11), 1115-1125.
21. Chen, X., and Kareem, A. (2005). "Proper orthogonal decomposition-based modeling, analysis and simulation of wind loads and their effects." Journal of Engineering Mechanics, ASCE, 131(4), 325-339.